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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/796,736 | 03/08/2004 | Michael Cohen | 305905.01 | 2514 |

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| EXAMINER |
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BAYAT, ALI

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| ART UNIT | PAPER NUMBER |
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2624

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| MAIL DATE | DELIVERY MODE |
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01/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|-------------------------------|------------------------------|--|
| Office Action Summary | Application No. 10/796,736 | Applicant(s) COHEN ET AL. | |
| | Examiner Ali Bayat | Art Unit 2624 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-17 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 18-29 is/are rejected.
- 7) ☒ Claim(s) 4-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>5/04/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims 18-29 are rejected under 35 U.S.C. 101 reads as follows: because the claimed invention is directed to non-statutory subject matter. Regarding claim 18, the preamble states "a computer-readable medium having computer executable instructions for segmenting image data, said computer executable instructions comprising:" which as written is not statutory. Computer-readable medium needs to be encoded/embedded on a computer readable medium for a computer to carry out the steps of the program method (See MPEP 2106 and pages 52-53 of the Interim Guidelines). To make these

claims statutory please change the preamble of at least claim 18 to recite "computer-readable medium encoded with computer executable instructions for segmenting image data, said computer executable instructions comprising:"

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mojsilovic et al.(Pub.No: US 2003/0195883) in view of Okada et al(Pub.NO: US 2005/0135663).

In regard to claim 1, Mojsilovic provides for inputting an image (Fig.11, Para 124); segmenting said image using a mean shift segmentation technique (para.125, color segmentation by a mean shift algorithm) employing anisotropic kernels. Mojsilovic does not provide for anisotropic kernel. However in the same field of endeavor Okada provide for anisotropic kernel (Fig.1 element 101, Para.26, note anisotropic (Ellipsoidal) shape). It would have been obvious to a person of ordinary skill in the art at time the invention was made to incorporate the teaching of Okada with system and method of

Mojsilovic , for treating a scale selection problem in the anisotropic scale-space in volumetric image data characterization. See the field of the invention.

With regard to claim 2, Mojsilovic provides for a spatial/lattice component and a space dependent range/color domain component (Para.126, note spatial Jacobian (L, a, b).

With regard to claim 2, see the rejection of claim 1. It recites similar limitations as claim 1. Except for space dependent range/color domain component (Fig.1 element 110B, note printer, Para. 45). Hence it is similarly analyzed and rejected.

As to claim 3, see the rejection of claim 1. It recites similar limitations as claim 1. Except for space independent range/color domain component (Para.126, note spatial Jacobean (L, a, b).). Hence it is similarly analyzed and rejected.

Objected Claims

3. Claims 4-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowed Claims

4. Claims 14-17 are allowed.

Reasons for Allowance

5. The following is an examiner's statement of reasons for allowance: the closest prior art of Mojsilovic et al. (Pup. No: US 2003/0195883) in combination with Okada et al. (Pub. No: US 2005/0135663), provide for segmenting said image using a mean shift segmentation technique (para.125, color segmentation by a mean shift algorithm) and providing for anisotropic kernel (Fig.1 element 101, Para.26, note anisotropic

(Ellipsoidal) shape) respectively. The closest cited prior arts failed to teach or suggest for iteratively moving each mean shift point upwards along the gradient of the kernel density function defined by the sum of all the kernels until they reach a stationary point; and considering pixels that are associated with the set of mean shift points that migrate to the approximately same stationary point to be members of a single segment. As cited in claim 14.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Bayat whose telephone number is 571-272-7444.

The examiner can normally be reached on M-F 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

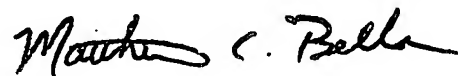
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ali Bayat *AB*
Patent Examiner
Division 2624
12/31/07



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